

# Doing things with numbers— how does infection prevention and control teams read surveillance data?

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## Background

Data driven healthcare is considered to ensure high-quality services. **Artificial Intelligence systems** are widely described as a feasible method for **HAI surveillance** and to have potential to **save time, provide accurate data** and by this support and improve **infection prevention performance**. To support this, an automatic national surveillance system **HAIBA (Hospital Acquired Infections dataBase)**, was launched in 2015. Literature in philosophy of science and social science demonstrate that data repurposing requires meticulous data-work and expertise to succeed. There seems to be a lack of knowledge about how the infection prevention and control teams (IPCT) interact and repurpose HAI data.

**How do they use data, how is data presented and what influences data-work?**

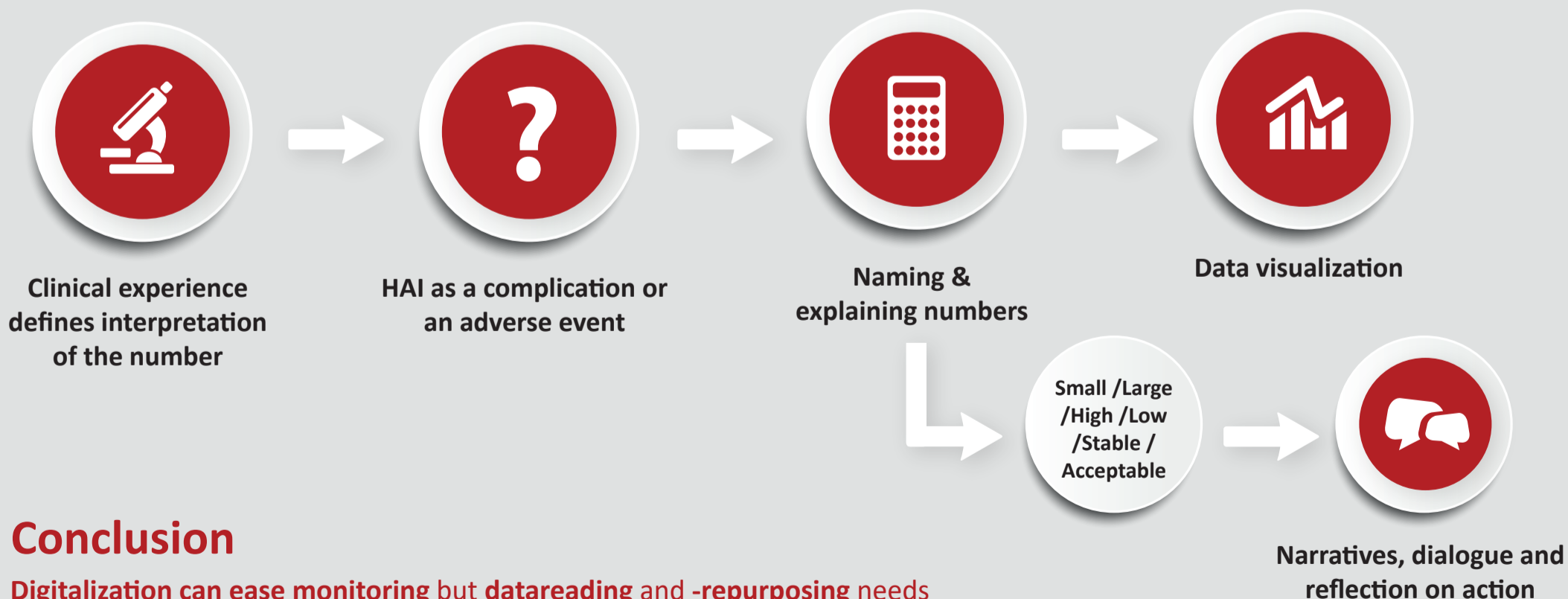
## Methods

Empirics are uncovered through **ethnographic studies** in the Danish healthcare system. Semi-structured interviews of **10 microbiologist, 1 doctor and 23 infection prevention nurses**, participant observation of repurposing data in IPCT and informal discussions with **members of IPCT** were performed in **14 Infection prevention units (IPCU)** in 5 Danish regions in the period August 2017 - January 2020. Analysis uses discourse analytical framework with practice theory and resemiotization as theoretical basis.

## Findings

Reading numbers requires

**numeracy & literacy**



## Conclusion

**Digitalization can ease monitoring but datareading and -repurposing** needs to be done by **experienced IPCT** that can disentangle data. It is **essential** that the patient “behind the number” is taken into consideration to qualify the clinical judgment decisive for the choice of action. The **IPCT** must be given time and room for an ongoing dialogue on the cognitive and interpersonal perception of data.